

AUSTRALIA IN THE WAR OF 1939-1945

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MEDICAL

VOLUME I  
*CLINICAL PROBLEMS OF WAR*

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# CLINICAL PROBLEMS OF WAR

*by*

ALLAN S. WALKER  
M.D., Ch.M., F.R.A.C.P.

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*“ . . . a clock strikes.  
And all sway forward on the dangerous flood  
Of history, that never sleeps or dies,  
And held a moment, burns the hand.”*

(W. H. Auden)

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## ABBREVIATIONS USED IN REFERENCES

- Med. Journ. Aust.*—The Medical Journal of Australia.  
*Brit. Med. Journ.*—British Medical Journal.  
*Quart. Journ. Med.*—Quarterly Journal of Medicine.  
*Lancet*—Lancet.  
*Journ. Clin. Invest.*—Journal of Clinical Investigation.  
*Arch. Int. Med.*—Archives of Internal Medicine.  
*Br. Journ. Path. & Bact.*—British Journal of Pathology and Bacteriology.  
*Br. Journ. Surg.*—British Journal of Surgery.  
*Br. Journ. Derm.*—British Journal of Dermatology.  
*Journ. Amer. Med. Assn.*—Journal of the American Medical Association.  
*Aust. & N.Z. Journ. Surg.*—Australian & New Zealand Journal of Surgery.  
*Bull. War Med.*—Bulletin of War Medicine.  
*Ann. Surg.*—Annals of Surgery.  
*Arch. Path.*—Archives of Pathology.  
*Am. Journ. Hyg.*—American Journal of Hygiene.  
*Trans. Roy. Soc. Med.*—Transactions of the Royal Society of Medicine.  
*Trans. Roy. Soc. Trop. Med. & Hyg.*—Transactions of the Royal Society of Tropical Medicine & Hygiene.  
*Postgrad. Med. Journ.*—Postgraduate Medical Journal.  
*Bull. Trop. Dis.*—Bulletin of Tropical Diseases.  
*Am. Journ. Trop. Med.*—American Journal of Tropical Medicine.  
*Pract.*—The Practitioner.  
*Aust. Journ. Dent.*—The Australian Journal of Dentistry.  
*Journ. Path. & Bact.*—Journal of Pathology & Bacteriology.  
*Brit. Journ. Ophth.*—British Journal of Ophthalmology.  
*M.R.C. Memo.*—Medical Research Council Memorandum.  
*Proc. Roy. Aust. Coll. Phys.*—Proceedings of the Royal Australasian College Physicians.  
*Army Trop. Med. & Path.*—Army Tropical Medicine & Pathology.  
*Surg. Gyn. & Obstet.*—Surgery, Gynaecology and Obstetrics.  
*Brit. Journ. Exp. Path.*—British Journal of Experimental Pathology.

*PART I*  
MEDICAL

## PREFACE

THIS book obviously cannot fully cover a subject so wide as the *Clinical Problems of War*; rather it is a brief and incomplete account of the medical and surgical problems of the Australian armed forces during the war of 1939-1945. The Australian Army Medical Corps<sup>1</sup> has supplied most of the information used in this volume, but the medical services of the Royal Australian Navy and the Royal Australian Air Force have also contributed to it, even where not specifically stated in the text. More detailed accounts of some subjects of special interest to medical officers of the navy and air force will be given in the individual histories of these services in a later volume.

The plan originally drawn up for an Official Medical History by the late Major-General R. M. Downes included clinical volumes. He intended that these should consist of articles written by medical officers, but even during the short time he worked on the history before his lamented death on duty, he realised that considerable difficulties would arise, and I have experienced these likewise. Such accounts could only be properly written with access to relevant records, and preferably during the officers' military service, but this was not practicable. Moreover, the claims of post-graduate study and of professional rehabilitation could not be denied. Therefore the actual writing of this clinical volume has, with the exception of a few sections, been a single-handed task.

The scope of the book calls for some explanation. It is not a text book, nor a military manual. It deals with military administration only where this is germane to the control of disease or injury. It does not pretend to cover the whole of any subject, but it records Australian experience, the methods found valuable, the successes and the failures. It stops short at the end of 1945, and it touches only the barest fringe of post-war experience, for this is beyond its ambit. The book must be read in the light of what we knew and experienced in the period of 1939-1945: it is complementary to the volumes in course of preparation, which will deal chiefly with campaign narratives and affairs of administration, and will also contain a quantity of clinical material illustrative of the problems of field work. This clinical volume will not rob the future volumes, but is designed to show how the doctor remains the doctor even in an environment largely foreign to him. I hope too that it will show how the Australian medical officer in time of war is still resourceful, apt at extemporisations, and able to make contributions of real scientific value to the problems that are his.

The medical histories of the 1939-1945 war compiled by English-speaking Allies have one unique common feature: they are coordinated by a Liaison Committee of Official Medical War Historians, a body which came into being through the foresight and wisdom of the British medical historical organisation, with representation from United Kingdom, Australia,

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<sup>1</sup> Since the war the right to use the title "Royal" has been conferred on the A.A.M.C. which has thus become the R.A.A.M.C.

Canada, India, New Zealand, Pakistan, South Africa and the United States of America. These representatives have the status of appointment by their respective governments. This committee has held meetings in England, Canada, and Australia, has freely discussed the whole project, exchanged and criticised drafts, and agreed on certain principles.<sup>2</sup> From these discussions arose an important decision that the clinical volumes should have priority of compilation and publication, because of the urgency implicit in placing their conclusions before the medical world. In one sense history is never out-of-date, but if a history of this kind is to be valuable it should be available as soon as possible. It was also agreed that, while medical material was freely exchanged, subjects concerning which some services had little experience would only be dealt with briefly, leaving fuller expositions to those who could speak from personal knowledge and investigation. This will explain why in some instances there is unevenness of size in the various chapters.

In the early years no settled organisation was laid down for the Medical History, and I acknowledge with deep gratitude the help given by the Department of the Army, providing me with office accommodation in Melbourne and Sydney for 2½ years, and securing me the valued help of Lieutenant G. Cutler, A.A.M.W.S., as a research assistant in 1945, and Corporal D. B. Stinton, A.A.M.W.S., during 1945 and 1946, and Miss G. M. Jones, who carried out the secretarial work during 1947. I am most indebted to Colonel A. M. McIntosh, D.D.M.S., Eastern Command, who helped in many important ways while I worked in this area. Mr Gavin Long, the General Editor of the War History, has given me much valuable assistance and advice, and since coming to Canberra in December 1947 I have had useful help from his staff, particularly in access to non-medical, but essential information, and in typing when no other assistance was available. Mr W. A. McLaren, Secretary of the Department of the Interior, has been most helpful in securing working conditions necessary for the carrying out of this huge task. The director, Colonel J. L. Treloar, and the records and library staffs of the Australian War Memorial have also provided source material and literature. Since July 1949 I have had invaluable help from Mrs Evelyn East as a research assistant and from October 1949 from Mrs Gladys Pope in a secretarial capacity. At a time when it seemed impossible to secure adequate assistance Mrs H. W. Wunderly voluntarily carried out useful research for me, and helped me with critical reading of drafts.

Every section of this book has been submitted to the critical scrutiny of medical officers who had personal experience of the relevant subjects during the war, and who have furnished many valuable corrections, suggestions and material. I am specially indebted to Dr Mervyn Archdall, Editor of *The Medical Journal of Australia*, who read and criticised the whole typescript of this volume, and has given me the greatest help and encouragement.

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<sup>2</sup> At the time of writing a final meeting is projected, possibly in India.

A large amount of material has been gleaned from articles already published; these contributions are acknowledged in the lists of references. A considerable bulk of material has been gathered from reports from medical units and from individual medical officers; with pleasure I acknowledge these, and also the myriad contributions made, often unknown, by hundreds of unnamed doctors on service, who have shown so high a grade of observation and skill.

Special articles for use in the history were supplied by several officers; my thanks are particularly due to Colonel I. J. Wood, Lieut-Colonel K. W. Starr, Lieut-Colonel B. K. Rank, and Major R. J. Walsh, who have enriched the sections on blood transfusion and surgery, and to Majors S. V. Marshall and J. F. McCulloch for supplying much of the material for the section on anaesthesia.

In accordance with the general policy of the Australian War History I point out that some material used in this book has been derived from my personal experiences while acting as the physician in charge of the medical division of the 2/1st Australian General Hospital, and of the 113th Australian General Hospital, Concord, and as a Consulting Physician to the army at the Australian medical headquarters and in the field.

Canberra, 15th June 1950.

A.S.W.

## PROLOGUE

### *WAR AND MEDICINE*

#### I

**B**EFORE 1914 there were but the premonitory stirrings of the scientific revolution that has since changed so completely the outlook of clinical medicine. Young practitioners of that period hardly realised that even the clinical thermometer was a comparatively recent innovation, though they could remember in their own boyhood the world stirred by the modest Röntgen, and during their student years were perhaps vaguely relieved that there was no simple and reliable method of estimating the blood sugar content. No doubt they read of the slaying of an otherwise obscure Archduke at Serajevo without any prophetic insight; they could not have foreseen how the thunders of war would shake the world, nor did they realise how sweeping would be the changes in their own profession.

After 1918 the urge to test and to measure animated the clinician. Methods became less empirical and more scientific, though it has since been evident that science at the bedside cannot confine all man's variables within a formula or weigh the imponderable. Even romantics who find science a fairyland must admit that its explorers sometimes pay homage to the comfortable shrine of mechanolatry.

Of course there can be no doubt of the blessings brought by these changes, though we may at times regret that the centre of gravity of medicine has moved from the home to the clinic and the hospital. Here the great gifts of modern methods of investigation and controlled therapeutics can be applied with a maximum of efficiency and a minimum of risk. Indeed the latter is more important than ever; there are not inconsiderable hazards in the bolder explorations of the human frame and the undaunted use of more potent and more toxic drugs. Laboratory and clinical research have now so multiplied that no single mind can cope with them, even using the up-to-date and copiously documented reviews of current literature. Post-graduate study occupies a dominant position in medical education even during war, and is a reflex of the complexity of medical science today. So also is the growing recognition of the value of that rare type of person, the medical philosopher, who amid the clamour of technologists, sociologists, economists and politicians finds some pattern in the tangled skein. However efficiently the Norns of modern medicine subdivide their duties in the weaving of destiny, they still require an oracle.

This wave of change reached military medicine after some delay. In Australia the way of the few "regulars" in service medicine is hard. Medical administrators and advisers have difficulty in pressing the adoption of modern methods, and even during war the higher command is not readily convinced that the most recent advances are desirable or practicable. But a body of practitioners switched suddenly from their work in the civil community to service in the field helps greatly by its strong insistence on



carrying over the best of methods and equipment into active service. At times their zeal needs some restraint, but it is an active and powerful leaven.

A little before 1939 it would have been hard to predict universal micro-radiographic examination of recruits, or refinements such as electro-cardiography or bedside estimation of the specific gravity of the blood in medical units in the field. Nor would it have seemed likely that a medical research unit established to seek the solution of specific problems affecting an army in the tropics should also make contributions in the realm of pure science.

## II

So much for the changes in scientific outlook of the medical profession in the years between the wars of 1914-1918 and 1939-1945. During this period signal changes had also taken place in the social, economic and political life of the community. It is of interest to see how far the medical profession, considered as a social group, had absorbed these elements of change, and how far it could still be recognised as a class somewhat distinctive in its ways of thought. The pomposities of the closing decades of the nineteenth century so clearly reflected in the social creeds, the literature, the art and the music of this period had largely disappeared by 1918, or were replaced by less obvious pretensions.

In these changes the medical profession, like other professions, had shared. The rise of specialism and of the scientific method now placed its internal distinctions on a firmer basis of special knowledge and special forms of practice. Medicine and surgery were further subdivided; between the extremes of specialisms the mutual links were few, but they were still strong, depending on the basic concepts of dealing with the sick in mind and body, and of a predominant interest in the individual patient.

Later in this period the upsurge of psychiatry, pre-natal care, child welfare, industrial medicine, and the establishment of chairs of social medicine brought a greater unity to the professional aims of a body whose work and interests covered a field at least as wide as that of any other scientific group. When closely examined this unifying influence still derived its strength from the firm individualism of physicians and surgeons. This theme underlay all clinical teaching. Even the jargon of the day which called a sick man a "case" emphasised his occupation of the focal point of attention. It is so easy to generalise on diagnosis or treatment, but so difficult to appraise the needs of one sick man. The importance of giving enough time, patience and attention to the eliciting of each man's story cannot be obscured by weighty investigations in the clinic or enthusiasms of "gadget-minded" doctors or public.

This has been all the more significant in the relations between members of the medical profession and the general community in an era when individual freedom is dwindling, and the right of conscience is belittled. As Constant Lambert has aptly said, the well-controlled citizen has become adapted only for "mass indignation, herd pleasures and community singing." His opinions are largely derived from Press, radio and public utterance, and while publicity in health matters from these sources is good

in principle, it remains so in practice only if properly used. Too often health as an entity is confused with matters such as the provision of facilities for diagnosis or treatment, whereas these are only part of the story. Even worse, positive harm is often done by publicising certain aspects of some subjects, such as neurotic types of illness. The average man's concern with health and illness has thereby become somewhat distorted. This is reflected in the universal aspirin in handbags or waistcoat pockets, or, sad to relate, in the too-prevalent barbiturates, and in the numerous proofs of self-drugging to be found in the sanctuary of the bathroom cupboard.

Nevertheless in health and sickness the emphasis remains on the individual, and in a world of failing individualism the medical profession stands out as one of the few social groups to champion the single soul. The stubbornness of this tenet has made doctors as a class somewhat intransigent of changes in which their life and training enable them to look past immediate expediency to the dangers of non-conformity with natural law. This applies with particular force to those medical men and women whose overall knowledge of medicine is widest, whose capacity to serve the public is greatest, and who are of the greatest value to the community in peace and war, the general practitioners.

### III

This then was the problem facing the civilian medical profession involved in the turmoil of war. How could its members best bring their highly individual application of scientific method to national service, how fit into the ordered hierarchies of the state and the armed forces? This story can best be told by following the adaptation of medical organisation and method to the exigencies of training and campaigning, and describing how the wastages of war could be minimised and controlled, and how its asperities could be softened. This leads us into a ramification of administration which stretches from a central directorate through many, sometimes only too many, sub-directorates to units contrived for several purposes, yet always for the one great purpose, and finally to the individual plain doctor plying his uniformed calling in a manner consonant with his training and his instincts. The background of this complex organisation is set by its last component, the practising doctor. Some of the problems met with on active service were identical with or similar to those of civil life, some were unfamiliar. Many were difficult, their solution depended on observation, experience and experiment: research must begin in the front line.

Therefore it is logical that a medical history should begin with an account of the purely medical problems of doctors on service. When they stepped from civil or peacetime practice into the theatre of war what did they bring with them, and later when they stepped back into a world crying for reconstruction, losers in some things, gainers in others, what did they bring with them then?

It is fitting that those physical and mental trials which beset the service man and woman in war should have priority of record in a medical

history. Let us not forget that, as Rudyard Kipling once pointed out to a gathering of medical men, mankind may be divided into two classes, doctors and patients, and that without the cooperation, cheerfulness and fortitude of the patients the efforts of the medical services would have been of less avail.